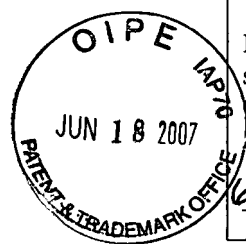


C#C



CERTIFICATE OF MAILING 37 C.F.R. 1.8	
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6/15/07 Date	 Michelle C. Replogle

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Isak deVilliers Louw, *et. al*

U.S. Patent No. 7,225,561

Serial No.: 10/532,461

Atty. Dkt. No.: 10025.0160.PCUS00

Issue Date: June 5, 2007

For: Oxyfluorination

**REQUEST FOR CORRECTED PATENT
OR ALTERNATIVELY, A CERTIFICATE OF CORRECTION
UNDER 35 U.S.C. § 254**

**Certificate
JUN 20 2007
of Correction**

Commissioner for Patents
Office of Patent Publication
Attention: Certificate of Correction Branch
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants request an expedited corrected patent to be issued pursuant to 37 CFR 1.322 (b) ("If the nature of mistake on the part of the Office is such that a certificate of correction is deemed inappropriate in form, the Director may issue a corrected patent in lieu thereof as a more appropriate form for certificate of correction, without expense to the patentee."). The errors described below, and enclosed in form PTO-1050, are incurred through the fault of the Patent and Trademark Office, are clearly disclosed by the records of the Office, and are of a form that

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requires a corrected patent in lieu of a certificate of correction. In the alternative, Applicants request an expedited Certificate of Correction under 37 CFR 1.322(a).

Enclosed are two originals of the form PTO-1050 correcting the following errors:

Claim 1, lines 21-24, "elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents" should read

--elastomeric materials having constituents which are confined to carbon and hydrogen, polymeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents, elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents--;

Claim 1, line 27, "our" should read --out--.

The errors identified above and in form PTO-1050, are disclosed in the record. However, in order to expedite the consideration of this request, Applicants have enclosed the following relevant documents and describe them as follows. On January 29, 2007, Applicants filed an RCE (**Exhibit 1** (RCE submission)) with a submission under 37 CFR 1.114 for entering the amendments previously filed in Applicants' Amendment After Allowance Mailed 11/21/2006 (**Exhibit 2** (11/21/2006 Amendment)). This 11/21/2006 Amendment amended Applicants' claim 1 to correct the errors listed above. Applicants' RCE filing was proper and the amendments made to the claims were made as a matter of right. Accordingly, on February 23, 2007 the Examiner reviewed amended claim 1 from Applicants' 11/21/2006 Amendment (*see* **Exhibit 3** (PAIR Image File Wrapper)) and signed the front page of such amendment with "OK to enter Stephen Gravini," (**Exhibit 4**). Applicants' pending claims were then allowed. Upon reviewing the issued patent **7,225,561**, it is readily apparent that the amendments, made by Applicants' 11/21/2006 Amendment, do not appear in claim 1 as published.

JUN 20 2007

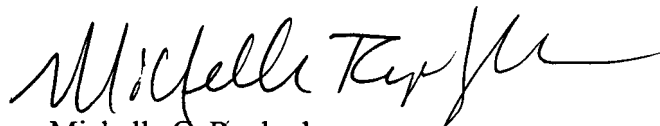
Request for Corrected Patent
Serial No.: 10/532,461

Applicants require a corrected patent (or alternatively, a certificate of correction) in an expedited fashion due to the form of the Patent and Trademark Office's errors to Applicant's claim 1 and due to the need to provide the **correct** claims in support of Applicants' foreign filings.

In light of the above, Applicants request an expedited corrected patent to be issued pursuant to 37 CFR 1.322 (b), or in the alternative an expedited certificate of correction under 37 CFR 1.322(a). When the above-requested Corrected Patent or Certificate of Correction has been completed and printed, please forward the official Corrected Patent or Certificate of Correction to the Attorney of Record.

At this time, Applicants do not believe that any fee should be required, however, should the Commissioner deem any other fees necessary regarding this application, the Commissioner is authorized to charge such fee from Deposit Account No. Deposit Account No. 08-3038/10025.0160.PCUS00.

Respectfully submitted,



Michelle C. Replogle
Reg. No. 54,394
Attorney for Assignee
South African Nuclear Energy Corp. Limited

Customer No. 23369
HOWREY LLP
2941 Fairview Park Drive, Box 7
Falls Church, VA 22042
(713) 787-1400

Date: June¹⁵, 2007

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,225,561 B2

APPLICATION NO.: 10/532,461

ISSUE DATE : June 05, 2007

INVENTOR(S) : Louw et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 1, lines 21-24, "elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents" should read -- elastomeric materials having constituents which are confined to carbon and hydrogen, polymeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents, elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents--;

Claim 1, line 27, "our" should read --out--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,225,561 B2

APPLICATION NO.: 10/532,461

ISSUE DATE : June 05, 2007

INVENTOR(S) : Louw et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 1, lines 21-24, "elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents" should read -- elastomeric materials having constituents which are confined to carbon and hydrogen, polymeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents, elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents--;

Claim 1, line 27, "our" should read --out--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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EXHIBIT 1

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HOUSTON, TEXAS 77002-5242
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FACSIMILE COVER SHEET

DATE: January 29, 2007

TO: **NAME:** Mail Stop RCE
COMPANY: USPTO
FAX NUMBER: 571.273.8300 **PHONE NUMBER:** _____
CITY: Alexandria, VA

FROM: **NAME:** Michelle Replogle
DIRECT DIAL NUMBER: 713.787.1535 **USER ID:** 2346

NUMBER OF PAGES, INCLUDING COVER: 3 **CHARGE NUMBER:** 10025.0160.PCUS00

☐ **ORIGINAL WILL FOLLOW VIA:**
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SUPPLEMENTAL MESSAGE:**Serial No.:** 10/532,461**Filing Date:** September 29, 2005**Title:** Oxyfluorination**Re:** Request for Continued Examination (RCE) Transmittal (2 copies)**Michelle C. Replogle****Reg. No. 54,394****Tel.: 713.787.1535**

THE INFORMATION CONTAINED IN THIS TRANSMISSION IS PRIVILEGED AND CONFIDENTIAL. IT IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY NAMED ABOVE. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US AT THE ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU.

IF THERE ARE ANY QUESTIONS OR PROBLEMS WITH THE TRANSMISSION OF THIS FACSIMILE, PLEASE CALL 713.787.1588

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U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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Request for Continued Examination (RCE) Transmittal Address to: Mail Stop RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	10/532,461
	Filing Date	September 29, 2005
	First Named Inventor	Isak deVilliers Louw, et al.
	Art Unit	3749
	Examiner Name	Stephen Gravini
	Attorney Docket Number	10025.0160.PCUS00

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. ☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

ii. ☒ Other Amendment After Allowance Mailed 11/21/2006

b. ☐ Enclosed

i. ☐ Amendment/Reply

ii. ☐ Affidavit(s) Declaration(s)

iii. ☐ Information Disclosure Statement (IDS)

iv. ☐ Other _____

2. **Miscellaneous**

a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(f) required)

b. ☐ Other _____

3. **Fees** The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

a. ☒ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 10025.0160.PCUS00. I have enclosed a duplicate copy of this sheet.

i. ☒ RCE fee required under 37 CFR 1.17(e)

ii. ☒ Extension of time fee (37 CFR 1.138 and 1.17)

iii. ☒ Other Any fee of extension necessary. Reference No. 10025.0160.PCUS00

b. ☐ Check in the amount of \$ _____ enclosed

c. ☐ Payment by credit card (Form PTO-2038 enclosed)

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Signature	<i>Michelle C. Reptogle</i>	Date	1/29/07
Name (Print/Type)	Michelle C. Reptogle	Registration No.	64,394

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature	<i>Michelle C. Reptogle</i>	Date	1/29/07
Name (Print/Type)	Michelle C. Reptogle		

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 38 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Request for Continued Examination (RCE) Transmittal Address to: Mail Stop RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	10/532,461
	Filing Date	September 29, 2005
	First Named Inventor	Isak deVilliers Louw, et al.
	Art Unit	3749
	Examiner Name	Stephen Gravinl
	Attorney Docket Number	10025.0160.PCUS00

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. ☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

ii. ☒ Other Amendment After Allowance Mailed 11/21/2006

b. ☐ Enclosed

i. ☐ Amendment/Reply

ii. ☐ Information Disclosure Statement (IDS)

iii. ☐ Affidavit(s)/Declaration(s)

iv. ☐ Other _____

2. **Miscellaneous**

a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months. Fee under 37 CFR 1.17(f) required)

b. ☐ Other _____

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a. ☒ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 10025.0160.PCUS00. I have enclosed a duplicate copy of this sheet.

i. ☒ RCE fee required under 37 CFR 1.17(e)

ii. ☒ Extension of time fee (37 CFR 1.136 and 1.17)

iii. ☒ Other Any fee of extension necessary, Reference No. 10025.0160.PCUS00

b. ☐ Check in the amount of \$ _____ enclosed

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WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED		
Signature	<i>Michelle C. Rappole</i>	Date
Name (Print/Type)	Michelle C. Rappole	Registration No.
CERTIFICATE OF MAILING OR TRANSMISSION		
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.		
Signature	<i>Michelle C. Rappole</i>	Date
Name (Print/Type)	Michelle C. Rappole	Registration No.

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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EXHIBIT 2

1 JUN 20 2007

NOV 21 2006

1100 LOUISIANA 25TH FLOOR
HOUSTON, TX 77002-5242
PHONE 713.787.1400
FAX 713.787.1440
A LIMITED LIABILITY PARTNERSHIP**HOWREY** LLP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Izak De Villiers Louw, et al.

Group Art Unit: 3749

Serial No.: 10/532,461

Examiner: GRAVINI, STEPHEN
MICHAEL

Confirmation No.: 3923

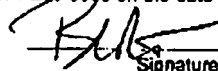
Filing or 371 (c) Date: 09-29-2005

Atty. Docket No.: 10025.0160.PCUS00

Title: OXYFLUORINATION

AMENDMENT AFTER ALLOWANCE PURSUANT TO 37 CFR § 1.312
AND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENTMail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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I hereby certify that this paper is being facsimile transmitted to
the Patent Office at 571-273-8300 on the date below.11-21-06
Date
Signature

I. INTRODUCTORY COMMENTS

Pursuant to 37 CFR § 1.312, Applicants respectfully request the following:

- Applicants respectfully request the examiner to amend claim 1 as follows as such amendment is needed for proper protection of Applicants' claimed invention and will not require a substantial amount of additional work on the part of the Office.
- Applicants further request the examiner to consider document CN1336281 (B1). Applicants have just recently been made aware of this reference and discloses the reference in compliance with Applicants' duty of disclosure under 37 C.F.R. § 1.56.

DM_USK413481.v1

JUN 20 2007

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NOV 21 2006

Serial No.: 10/532,461

(US National Stage of PCT/IB2003/004701)

Applicants: LOUW, Izak de Villiers, et. al

Atty. Ref.: 10025.0160.PCUS00

II. AMENDMENT TO THE CLAIMS

Please amend the claims to read as follows:

1. (Currently Amended): A process for the activation by oxyfluorination of at least part of a surface of a solid, which process includes exposing, under selected conditions of temperature and pressure and for a selected reaction time, at least part of the surface of the material of the solid to an oxyfluorinating atmosphere which is a gas/vapour mixture which includes at least one fluorine-containing gas which reacts with the material of the exposed surface, at least one oxygen-containing gas which reacts with the material of the exposed surface, and water vapour, said gases in the oxyfluorinating atmosphere acting to oxyfluorinate the exposed surface, thereby to activate the exposed surface to enhance the amenability of the exposed surface to adhesive bonding to other materials, the process including the steps whereby, in combination,

the solid material which is subjected to activation by oxyfluorination is selected from the group whose members consist of carbon, polymeric materials having constituents which are confined to carbon and hydrogen, elastomeric materials having constituents which are confined to carbon and hydrogen, polymeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents, elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents, and mixtures of any two or more of said members;

the exposing of the solid surface to the oxyfluorinating atmosphere is carried ~~[[our]]~~out on a continuous basis by continuously transporting the solid through an open-ended reaction chamber; and

the water vapour acts further to enhance the amenability of the exposed surface, provided by the oxyfluorination achieved by said gases, to adhesive bonding to said other materials.

2-7. (Canceled)

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JUN 20 2007



Serial No.: 10/532,461
(US National Stage of PCT/IB2003/004701)
Applicants: LOUW, Izak de Villiers, *et. al*
Atty. Ref.: 10025.0160.PCUS00

8. (Previously presented): A process as claimed in Claim 1, which includes selecting carbon as the material which is subjected to activation by oxyfluorination.

9-11. (Canceled)

12. (Previously presented): A process as claimed in Claim 1, which includes selecting the fluorine containing gas from the group consisting of F_2 , XeF_2 , ClF , ClF_3 , BrF , BrF_3 , BrF_5 , IF_7 , OF_2 , O_2F_2 and mixtures of any two or more thereof.

13. (Previously presented): A process as claimed in Claim 1, which includes selecting the oxygen-containing gas which reacts with the exposed surface from molecular oxygen, ozone and mixtures thereof.

14. (Previously presented): A process as claimed in Claim 1, which includes diluting the oxyfluorinating atmosphere with a diluent gas which is inert to the exposed surface and inert to the other constituents of the oxyfluorinating atmosphere, and does not react therewith.

15-16 (Canceled)

17. (Previously presented): A process as claimed in Claim 1, which includes using, as the oxyfluorinating atmosphere, a gas/vapour mixture of molecular fluorine, molecular oxygen and water vapour.

18. (Original): A process as claimed in Claim 17, which includes diluting the oxyfluorinating atmosphere, using molecular nitrogen as a diluent.

19-28. (Canceled)

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Serial No.: 10/532,461
(US National Stage of PCT/IB2003/004701)
Applicants: LOUW, Izak de Villiers, *et. al*
Atty. Ref.: 10025.0160.PCUS00

29. (Previously presented): A process as claimed in Claim 1, which includes exposing the solid material to a said oxyfluorinating atmosphere in which the fluorine-containing gas forms 5-20% by volume and the oxygen-containing gas forms 5-95% by volume.

30-39. (Canceled)

40. (Previously presented): A process as claimed in Claim 1 in which the exposing of the solid surface to the oxyfluorinating atmosphere is for a period of 1 second – 1 hour.

41. (Previously presented): A process as claimed in Claim 1, in which the solid surface which is exposed to the oxyfluorinating atmosphere is dry.

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Serial No.: 10/532,461
 (US National Stage of PCT/IB2003/004701)
 Applicants: LOUW, Izak de Villiers, *et. al*
 Atty. Ref.: 10025.0160.PCUS00

III. REMARKS

AMENDMENTS TO THE CLAIMS:

Applicants submit that the amendments to claim 1 are needed for proper protection of Applicants' claimed invention and will not require a substantial amount of additional work on the part of the Office.

The examiner rightly recognized, in Examiner's Amendment dated October 24, 2006, that claim 1 erroneously contained two duplicative occurrences of the following limitation: "elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents." And accordingly, the examiner deleted the second occurrence of this limitation by way of the Examiner's Amendment referenced above.

Upon review, Applicants have discovered that the second occurrence of this limitation is correct, and instead, the first occurrence of this limitation was in error. Accordingly, Applicants have amended claim 1 to read as follows:

1. (Currently Amended): A process for the activation by oxyfluorination of at least part of a surface of a solid, which process includes exposing, under selected conditions of temperature and pressure and for a selected reaction time, at least part of the surface of the material of the solid to an oxyfluorinating atmosphere which is a gas/vapour mixture which includes at least one fluorine-containing gas which reacts with the material of the exposed surface, at least one oxygen-containing gas which reacts with the material of the exposed surface, and water vapour, said gases in the oxyfluorinating atmosphere acting to oxyfluorinate the exposed surface, thereby to activate the exposed surface to enhance the amenability of the exposed surface to adhesive bonding to other materials, the process including the steps whereby, in combination, the solid material which is subjected to activation by oxyfluorination is selected from the group whose members consist of carbon, polymeric materials having constituents which are confined to carbon and hydrogen, elastomeric materials having constituents which are confined to carbon and hydrogen, polymeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents, elastomeric materials having constituents which are not confined to carbon and hydrogen and which include, in addition to carbon and hydrogen, other atomic species as constituents, and mixtures of any two or more of said members; the exposing of the solid surface to the oxyfluorinating atmosphere is carried ~~[[our]]out~~ on a continuous basis by continuously transporting the solid through an open-ended reaction chamber; and the water vapour acts further to enhance the amenability of the exposed surface, provided by the oxyfluorination achieved by said gases, to adhesive bonding to said other materials.

Applicants respectfully submit that no additional search or substantial amount of additional work is needed by the above amendments to claim 1, and further, that claim 1 is patentable over the art of record. The Examiner's reasons for allowance stated as follows:



Serial No.: 10/532,461
(US National Stage of PCT/IB2003/004701)
Applicants: LOUW, Izak de Villiers, et. al
Atty. Ref.: 10025.0160.PCUS00

The claimed invention including oxyfluorinating solid material activation from groups consisting of carbon, carbon and hydrogen confined polymeric materials, carbon and hydrogen non-confined elastomeric materials, and mixtures of any two thereof in an open ended reaction chamber exposure with water vapor acting to enhance amenability of the exposed surface, provided by the oxyfluorination achieved by gases, to adhesive bonding to other materials is not found in the prior art either singly or in combination. The closest prior art are Mori et al. (US 6,620,282) which discloses solid bonding with out an agent but not the independently claimed carbon and Vargo et al (US 6,790,526) which discloses oxythalopolymer adhesive composite with covalently bonded carbon polymer but not the necessary motivation or combination suggestion to obviate the claimed invention.

By the above amendment, Applicant's claimed invention includes a carbon and hydrogen confined elastomeric material and a carbon and hydrogen non-confined polymeric material. However, Applicants do not believe that the examination of the above amendments will require a substantial amount of additional work in light of the Examiner's previous reasons for allowance articulated above and believe that the claims remain in condition for allowance. MPEP § 714.16.

Applicants have further amended an obvious typographical error in claim 1 having replaced "our" with "out."

SUPPLEMENTARY INFORMATION DISCLOSURE STATEMENT:

In addition to the above claim amendments, Applicants have just recently been made aware of document, CN1336281. Accordingly, in compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the document listed on attached Form PTO-1449 be considered by the Examiner and made of record. An original copy of CN1336281 (B1) and a copy of the translation of CN1336281 are enclosed for the examiner's consideration.

The present Information Disclosure Statement is being filed prior to payment of the issue fee. Further, the reference CN1336281 (B1) was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement. Applicants authorize the Commissioner to deduct the fee set forth in § 1.17(p) from Deposit Account No. 08-3038/10025.0160.PCUS00 for payment of the

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Serial No.: 10/532,461

(US National Stage of PCT/IB2003/004701)

Applicants: LOUW, Izak de Villiers, et. al

Atty. Ref.: 10025.0160.PCUS00

fee set forth in §1.17(p) for filing this information disclosure statement, accordingly, Applicants believe that this information disclosure statement is timely filed in accordance with 37 C.F.R. § 1.97(d).

In accordance with 37 C.F.R. §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application. The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. § 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 08-3038/10025.0160.PCUS00.

The Examiner is invited to directly contact the undersigned representative by telephone to discuss any issues or questions presented by this paper.

Respectfully submitted,

Michelle C. Replogle

Patent Attorney

Reg. No. 54,394

Tel. 713.787.1535

Date: 11/21/06

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☒ ORIGINAL WILL NOT FOLLOW**SUPPLEMENTAL MESSAGE:**

Serial No.: 10/532,461

Filed: September 29, 2005

Entitled: "Oxyfluorination"

Re: Amendment After Allowance Pursuant to 37 CFR § 1.312
and Supplemental Information Disclosure Statement;
Form PTO-1449; Reference and Translation

Michelle C. Replogle

Reg. No. 54,394

Tel.: 713.787.1535

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Page 1 of 1

Form PTO-1449 (modified)		Atty. Docket No. 10025.0160.PCUS00	Serial No. 10/532,461
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant Isak deVilliers Louw, et al.	
		Filing Date: September 29, 2005	Group: 3749
U.S. Patent Documents N/A	Foreign Patent Documents See Page 1	Other Art N/A	

U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A1						

Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B1	CN1336281	Feb. 20, 2002	CN			Yes
	B2						

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C1	

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EXAMINER:	DATE CONSIDERED:
EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)

DM_US18413519.v1

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02-23-2007	Notice of Allowance and Fees Due (PTOL-85)	1	<input type="checkbox"/>	<input type="checkbox"/>
02-23-2007	List of References cited by applicant and considered by examiner	1	<input type="checkbox"/>	<input type="checkbox"/>
02-23-2007	Foreign Reference	45	<input type="checkbox"/>	<input type="checkbox"/>
02-23-2007	Search information including classification, databases and other search related notes	1	<input type="checkbox"/>	<input type="checkbox"/>
02-23-2007	Bibliographic Data Sheet	1	<input type="checkbox"/>	<input type="checkbox"/>
02-23-2007	Issue Information including classification, examiner, name, claim, renumbering, etc.	1	<input type="checkbox"/>	<input type="checkbox"/>
02-23-2007	Amendment After Final or under 37CFR 1.312, initiated by the examiner.	1	<input type="checkbox"/>	<input type="checkbox"/>
02-12-2007	Examiner's search strategy and results	2	<input type="checkbox"/>	<input type="checkbox"/>
01-29-2007	Request for Continued Examination (RCE)	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
01-29-2007	Fee Worksheet (PTO-06)	1	<input type="checkbox"/>	<input type="checkbox"/>
12-27-2006	Miscellaneous Action with SSP	2	<input type="checkbox"/>	<input type="checkbox"/>
12-27-2006	List of References cited by applicant and	1	<input type="checkbox"/>	<input type="checkbox"/>

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12-27-2006	<u>considered by examiner</u>		<input type="checkbox"/>
12-06-2006	<u>Authorization for Extension of Time all replies</u>	1	<input type="checkbox"/>
12-06-2006	<u>Amendment Submitted/Entered with Filing of CPA/RCE</u>	1	<input type="checkbox"/>
12-06-2006	<u>Claims</u>	3	<input type="checkbox"/>
12-06-2006	<u>Applicant Arguments/Remarks Made in an Amendment</u>	3	<input type="checkbox"/>
12-06-2006	<u>Information Disclosure Statement (IDS) Filed</u>	4	<input type="checkbox"/>
12-06-2006	<u>NPL Documents</u>	15	<input type="checkbox"/>
12-06-2006	<u>NPL Documents</u>	9	<input type="checkbox"/>
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12-06-2006	<u>Fee Worksheet (PTO-06)</u>	2	<input type="checkbox"/>
11-30-2006	<u>Bibliographic Data Sheet</u>	1	<input type="checkbox"/>
11-21-2006	<u>Amendment After Final or under 37CFR 1.312, initialed by the examiner.</u>	1	<input type="checkbox"/>
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11-21-2006	<u>Transmittal to TC</u>	1	<input type="checkbox"/>
11-21-2006	<u>Information Disclosure Statement (IDS) Filed</u>	1	<input type="checkbox"/>
11-21-2006	<u>Foreign Reference</u>	24	<input type="checkbox"/>
11-03-2006	<u>Notice of Allowance and Fees Due (PTOL-85)</u>	3	<input type="checkbox"/>
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11-03-2006	<u>List of References cited by applicant and considered by examiner</u>	1	<input type="checkbox"/>
11-03-2006	<u>Bibliographic Data Sheet</u>	1	<input type="checkbox"/>
11-03-2006	<u>Issue Information including classification, examiner, name, claim, renumbering, etc.</u>	1	<input type="checkbox"/>
11-03-2006	<u>Search information including classification,</u>	1	<input type="checkbox"/>

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10-25-2006	<u>databases and other search related notes</u>		<input type="checkbox"/>
10-24-2006	<u>Examiner's search strategy and results</u>	1	<input type="checkbox"/>
03-13-2006	<u>Examiner's search strategy and results</u>	2	<input type="checkbox"/>
02-10-2006	<u>Request for Corrected Filing Receipt</u>	5	<input type="checkbox"/>
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09-29-2005	<u>Applicant Response to Pre-Exam Formalities Notice</u>	4	<input type="checkbox"/>
09-29-2005	<u>Oath or Declaration filed</u>	2	<input type="checkbox"/>
09-29-2005	<u>Bibliographic Data Sheet</u>	1	<input type="checkbox"/>
08-03-2005	<u>Notice of DO/EO Missing Requirements Mailed</u>	2	<input type="checkbox"/>
07-05-2005	<u>Applicant Response to Pre-Exam Formalities Notice</u>	4	<input type="checkbox"/>
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04-22-2005	<u>Specification</u>	50	<input type="checkbox"/>
04-22-2005	<u>Claims</u>	8	<input type="checkbox"/>
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04-22-2005	<u>Certified Copy of Foreign Priority Application</u>	21	<input type="checkbox"/>
04-22-2005	<u>Certified Copy of Foreign Priority Application</u>	52	<input type="checkbox"/>

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04-22-2005	Documents submitted with 371 Applications	63	<input type="checkbox"/>
04-22-2005	Documents submitted with 371 Applications	12	<input type="checkbox"/>
04-22-2005	Documents submitted with 371 Applications	16	<input type="checkbox"/>
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Izak De Villiers Louw, et al.

Group Art Unit: 3749

Serial No.: 10/532,461

Examiner: GRAVINI, STEPHEN
MICHAEL

Confirmation No.: 3923

Filing or 371 (c) Date: 09-29-2005

Atty. Docket No.: 10025.0160.PCUS00

Title: OXYFLUORINATION

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I. INTRODUCTORY COMMENTS

Pursuant to 37 CFR § 1.312, Applicants respectfully request the following:

- Applicants respectfully request the examiner to amend claim 1 as follows as such amendment is needed for proper protection of Applicants' claimed invention and will not require a substantial amount of additional work on the part of the Office.
- Applicants further request the examiner to consider document CN1336281 (B1). Applicants have just recently been made aware of this reference and discloses the reference in compliance with Applicants' duty of disclosure under 37 C.F.R. § 1.56.

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